

The Examiner rejects claims 4 and 9-40 as lacking enablement commensurate with the scope of the claims. Applicant respectfully traverses the rejection based on the amendments to the claims and on the arguments presented below.

The Examiner states that the claims are enabled for “a method for determining regression, progression or onset of diabetes comprising obtaining a level of the amount of K41-glycated CD59 from urine obtained from a subject and comparing the level to a control as a determination of regression, progression or onset of the condition, using an agent that comprises antibodies that bind glycated and nonglycated CD59.” The Examiner also states that the methods are not enabled for any condition characterized by abnormal levels of glycated protein comprising obtaining a level of the amount of K41-glycated CD59. To address this basis of the rejection, Applicant has amended claim 4 to specifically describe the condition as a “diabetic condition.” A subject with a “diabetic condition” is described at page 12 line 32 through page 13 line 9, as an “individual who, at the time the sample is taken, has a primary deficiency of insulin.” Applicant believes that the claim amendment obviates the Examiner’s rejection.


The Examiner agrees that the claimed invention is enabled for urine samples, but contends that it is not enabled for any sample. Applicant respectfully submits that the invention is enabled for additional types of samples including blood and tissue samples. Support for the detection of levels of glycated and nonglycated CD59 in tissue samples as well as fluid samples including lymph, saliva, blood, and urine in the methods of the invention is found at page 12, lines 25-29 of the specification. In addition, Applicant files herewith a signed Declaration of the inventor, Dr. José Halperin, which provides descriptions and results of experiments done using the methods of the invention to detect levels of glycated and nonglycated CD59 in urine, blood and tissue samples. Applicant submits that the Declaration provides evidence that the methods of the invention are enabled for tissues and fluids such as blood, in addition to being enabled for urine samples.

The Examiner also states that the specification does not disclose the claimed method wherein the level of CD59 (glycated or nonglycated) is determined by any specific agent other than one comprising antibodies. Applicant has amended claim 4 to specifically identify antibodies and fragments of antibodies as the agent with which the level of K41-glycated CD59

is determined using the methods of the invention. Applicant believes this amendment obviates the Examiner's rejection.

Applicant respectfully requests reconsideration of the claims in view of the amendments and reasoned statements made above. If the Examiner wishes to advance the prosecution, then the Examiner is invited to telephone the undersigned at the telephone number listed below.

Respectfully submitted,
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Marked-up Specification

Page 25, lines 5-12

Site-directed Mutagenesis: Plasmid pK562-3 containing the cDNA of human CD59 (Philbrick, et al., 1990) was obtained from ATCC. Site-directed mutagenesis to substitute residue K41 or H44 for glutamine (Gln) was performed using the Altered Sites 11 system (Promega Corp. Madison, WI). The mutagenic primers used were 5'-GTC GTT GAA ATT ACA ATG CTC AAA CTG CCA ACA CTT-3' (SEQ ID NO:2 [NO:1]) for the Gln-41 substitution, and 5'-GTT GAA ATT GCA CTG CTC AAA CTT CCA-3' (SEQ ID NO:3 [NO:2]) for the Gln-44 mutation.

Successful mutagenesis was confirmed by sequencing using standard methods.

Marked-up Claims

4. (Amended) A method for determining regression, progression or onset of a diabetic condition characterized by abnormal levels of glycated protein comprising;

obtaining a level of the amount of K41-glycated CD59 from a sample obtained from a subject, and

comparing the level to a control as a determination of regression, progression or onset of the condition, wherein the level is obtained using an antibody or antigen-binding fragment thereof.

31. (Amended) The method of claim 4, wherein the antibody or antigen-binding fragment thereof [level is obtained using an agent that] binds specifically to K41-glycated CD59.

32. (Amended) The method of claim 4 [31], wherein the antibody or antigen-binding fragment thereof [agent] is detectably labeled.

34. (Amended) The method of claim 4 [33], wherein the antibody is a monoclonal antibody.

35. (Amended) The method of claim 4 [33], wherein the antibody is a polyclonal antibody.

36. (Amended) The method of claim 4, wherein the level is obtained using two antibodies or antigen-binding fragments thereof [agents], a first antibody or antigen-binding fragment thereof [agent] that binds both glycated and nonglycated CD59 and a second antibody or antigen-binding fragment thereof [agent] that binds only one of a glycated K41 and a nonglycated K41.

37. (Amended) The method of claim 36, wherein one or more of the first and second antibody or antigen-binding fragment thereof [agents] is detectably labeled.

39. (Amended) The method of claim 36 [38], wherein one or more of the first and second antibodies is a monoclonal antibody.

40. (Amended) The method of claim 36 [38], wherein one or more of the first and second antibodies is a polyclonal antibody.